BRUHAT BENGALURU MAHANAGARA PALIKE

Executive Engineer Yelahanka Division

Name of Work:Consultancy Services for Preparation of DPR for the work of Improvements to roads, drains and other developmental works in Ward No- 01 & 02. Under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division.(Package-07)

a) Improvements to roads and drains at kurlappa layout munithimmayya layout in kempegowda ward no-01 of yelahanka sub division

b)Improvements to balance road and drains at lake view layout main road and cross roads in kempegowda ward no-01 of yelahanka sub division

c)Improvements to balance road and drains at lake view layout balance cross roads in kempegowda ward no-01 of yelahanka sub division

d)Asphalting to roads at govt hospital road via BBMP office upto masidi circle in kempegowda ward no-01 of yelahanka sub division

e)Improvements and asphalting to roads and drains at GKVK layout and surrounding area in kempegowda ward no-01 of yelahanka sub division

e)Improvements and asphalting to roads and drains at Jaimuninagar and udayanagara in kempegowda ward no-01 of yelahanka sub division

Sl. No.	Description	Unit	Quantity							Total Rate	Amount
			GO SI NO-86	GO SI NO-96	GO SI NO-97	GO SI NO-99	GO SI NO-100	GO SI NO-104	Total Qty.		
	1	2	3	4	5	6	7	8	9	10	11
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	Cum	829.80	1171.20	1086	105	0	910	4102.00	125.59	515170.18
2	KSRB 2-2.1 : Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no.6	Cum	971.50	1208.52	466.09	1016.12	1020.96	1134.55	5817.74	399.07	2321685.50
3	KSRB 4-1.7 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	Cum	143.93	207.66	73.94	148.09	1070.08	180.75	1824.45	5627.54	10267165.35

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4	**Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs.** with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	Cum	335.94	513.16	162	379.38	393.46	391.54	2175.48	7273.72	15823832.39
5	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting,** bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Tn	20.69	31.50	9.72	24.69	24.98	24.01	135.59	72326.98	9806815.22
6	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of all materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc ,copmplete. (Data Rate)	Sqm	829.80	1224	405	750.6	993.60	936	5139.00	2337	12009843.00
7	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm	30	39.60	0	108	76.80	28.8	283.20	5418	1534377.60

8	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30**	Nos	0	2240	865	422	2365	2530	8422.00	432.48	3642346.56
9	KSRRB 800-1 Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	Sqm	0	453.60	175.5	85.5	478.80	513	1706.40	84.8	144702.72
10	**KSRRB M600-1. Construction of dry lean cement concrete mix CC 1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse** aggregate at 0.86cum and fine aggregates @ 0.58cum Sub-base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1 Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No. 601 of MORTH V Revision and IS 456 Table-5 22.1.1 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor Page No.174. Item No.22.1.1	Cum	613.50	72	18	0	0	260.1	963.60	3800.10	3661776.36

11	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate** conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc.,	Cum	511.25	60	18	0	0	260.1	849.35	5210.96	4425928.88
12	**Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing** coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density. complete as per specifications. Clause 401 of MORTH V Revision. Page No.153. Item No.20.6	Cum	0	537.60	531	52.5	0	546	1667.10	1855	3092470.50
13	KSRRB M400-17. **Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No. 155. Item No.20.18	Cum	0	537.60	531	52.5	0	546	1667.10	2001.28	3336333.89
14	**KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion** on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P No-158,I No-21.6)		0	3584	3540	350	0	3640	11114.00	33.92	376986.88

15	KSRRB 500-2. **Cleaning the existing black topped surface with brooms, soft brushes and finally** dusting with old gunny bags and /or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 Page No.158. Item No.21.2		0	0	0	7950	3616	0	11566.00	5.62	65000.92
16	**KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading,** premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum	0	75.88	88.5	456.50	28.74	78	727.62	7620.34	5544711.79
17	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm	0	3584	3540	16250	4406.8	3640	31420.80	12.72	399672.58

18	**Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with** bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP- 53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171 Item No.21 78.12	Cum	0	143.36	141.6	332	153.28	145.6	915.84	8699.42	7967276.81
19	**Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause** 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 em x 45 cm x 60 em, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos	0	514	590	780	476	520	2880.00	137.8	396864.00
20	**KSRRB M800-4. Direction and Place Identification Signs / Project information Board with size more than 0.9 sqm Size Board:-Providing** and erecting direction and place identification retro- reflectorised sign as per IRC.67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing. Page No.180. Item No.24.4	Nos	0	2	1	9	2	5	19.00	7567.34	143779.46

21	**KSRRB M300-13: Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	**Sqm**	0	204.80	216.33	286	165.73	190.6	1063.46	454.74	483597.80
22	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	**Nos**	12	3	2	18	5	7	**47.00**	20882	981454.00
23	KSRRB M200-24. Dismantling of cement concrere pavement by mechanical means using pneumatic tools ,breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials separately complete as per specifications.MORTH Specification No.202 ,PAge No 140 Item no 18.47	Cum						346.80	346.80	952.94	330479.59
24	**Removing &refixing stone slab of drain**	Sqm				37.13			37.13	1062.12	39436.52
25	Providing granite slabs of selected quality roughly fressed and fixed in cement mortar (1:6) including fixing curing etc., complete - do- 10 cms thick (pagNo27. Ino 5.31.2.) + (KSRB 5-8.2: Providing two line dressing to granite stone slab/ granite stone masonry as per specifications.(pagNo26. Ino 5.18.)	Sqm				111.38			111.38	2551.42	284177.16
26	KSRB M300-19 Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specification no 301 pag no 147 It no 19.62	**Cum**				57.38			57.38	36.04	2067.98

27	Fabricating, providing and erecting in position of Hot Dip Galvanised Gate Using 72X72X4.8mm Sq.Gi Pipe frame with top pipe bending in heavy duty hydraulic press with sand packing and hot bending to from double arch as per drawing profile,20mm hot dip galavanised forged ornamental design in between shown in the drawing including providing hot dip galvanised forged ornamental designin between sq roads and heads at top, middle and bottom. intermediate supports of 75X12mm and 50X6mm arch bent to hot dip galvanised flats. the work is inclusive of throughing G.I flat GI sq roads placing ,welding all the joints including grinding, finishing metal patty, painting two coats enamel painting. the rate is inclusive of all materials like GI Sq roads, GI forged designs etc., heavy duty hinges are made out of 75mm solid sq. block assembled with 20mm dia bearing in three places for each flop. Heavy duty locking arrangements at low places including cost of labour, painting, erecting charges using hoist pulley cranes with all lead and lift, loading, transporttion, unloading, scaffolding charges and all other incidental charges for successful completion of the work as per directions of the Engineer-in-charge of the work	Sqm			68		68.00	9144	621792.00

Sub Total(1) Rs	88219745.63
12 % GST	10586369.48
DPR and PMC	1764394.913
tender premum 5 %	4410987.28
Miscellaneous & Rounding off	18502.71
Total Amount	105000000.00

Administrative Sanction for Rs. 1050.00 lakhs
One Crore Fifty Lakhs only
is accorded under head 2018-19
Chief Architect, Main Hangar/Hangar
Registered as CE No.
Subject to conditions contained in enclosed memo
No. EE/YNK/225/94/2019-20 dt. 17-3-2020
Executive Engineer

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.
2 The estimate is prepared as per PW, P&IWTD S.R Bangalore circle for the year 2018-2019.
3 The Provisions made in the estimate are quite necessary and adequate.
4 The area comes with in the BBMP limits.

Assistant Engineer
Yelahanka Sub Division
BBMP

Assistant Executive Engineer
Yelahanka Sub Division
BBMP

Executive Engineer
Yelahanka Division
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25	Providing granite slabs of selected quality roughly fressed and fixed in cement mortar (1:6) including fixing curing etc., complete - do- 10 cms thick (pagNo27. Ino 5.31.2.) + (KSRB 5-8.2: Providing two line dressing to granite stone slab/ granite stone masonry as per specifications.(pagNo26. Ino 5.18.)	Sqm	111.38	2551.42	Two Thousand Five Hundred Fifty One Rupees And Forty Two Paisa Only	284177.16
26	KSRB M300-19 Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specification no 301 pag no 147 It no 19.62	Cum	57.38	36.04	Thirty Six Rupees And Four Paisa Only	2067.98
27	Fabricating, providing and erecting in position of Hot Dip Galvanised Gate Using 72X72X4.8mm Sq.GI Pipe frame with top pipe bending in heavy duty hydraulic press with sand packing and hot bending to from double arch as per drawing profile,20mm hot dip galavanised forged ornamental design in between shown in the drawing including providing hot dip galvanised forged ornamental designin between sq roads and heads at top, middle and bottom. intermediate supports of 75X12mm and 50X6mm arch bent to hot dip galvanised flats. the work is inclusive of throughing G I flat GI sq roads placing ,welding all the joints including grinding, finishing metal patty, painting two coats enamel painting. the rate is inclusive of all materials like GI Sq roads, GI forged designs etc., heavy duty hinges are made out of 75mm solid sq. block assembled with 20mm dia bearing in three places for each flop. Heavy duty locking arrangements at low places including cost of labour, painting, erecting charges using hoist pulley cranes with all lead and lift, loading, transporttion, unloading, scaffolding charges and all other incidental charges for successful completion of the work as per directions of the Engineer-in-charge of the work	Sqm	68.00	9144	Nine Thousand One Hundred Forty Four Rupees And Zero Paisa Only	621792.00

Technical Sanction
Accorded For ASTO : SDCRS
Head of A/C Annexure-5
CER NO : 220 Dt: 02.11.2019

Sub Total	88219745.63
GST@12 %	10586369.48
DPR & PMC @2%	1764394.913
Tender premium 5%	4410987.28
Miscellaneous charges	18502.71
Total	105000000.00

JAA GE (YNK)

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4 The area comes with in the BBMP limits.

Assistant Engineer
Yelahanka Sub Division
BBMP

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BBMP

AARENA ASSOCIATES BANGALORE

Executive Engineer
Yelahanka Division
BBMP